

JACG JACG

NEWSLETTER
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THE JERSEY ATARI COMPUTER GROUP

From the Editor's Desk:

I'm in a bad mood! But first, a word from our sponsor! Our February issue was a big success. Many people told me that they like the idea of an occasional theme issue. Therefore, I hereby announce that the June issue of the JACG Newsletter will be an ALL GAMES issue. That means that all game reviews I receive will be held until then. So get out those games, both old and new, play 'em, and share your opinions with other JACG members. There will also be information on such topics as: game controllers, an inside look; what makes a good game; why the Surgeon General of the U.S. has declared videogames hazardous to your health; and plenty of surprises. If YOU have any ideas for a special issue, let me know!

In the "you heard it first here, department", we have scooped the other user group newsletters, and the national rags, once again. In this issue you will find reviews of the new Epson FX-80 printer and a tax preparation program for the Atari, as well as many other goodies. Also, look for the special AWESOME April issue of the Newsletter, for some interesting and fun material.

Finally, you have probably noticed that this issue came to you via, not first, not second, but third class mail. This has been done as an experiment to determine if it will work out, and therefore save us plenty of postage expense. I ask that you please note when your Newsletter arrives so we can monitor the progress of this method of mailing.

Now we return to your regularly scheduled, Editor's bad mood, already in progress. At the risk of making this issue an "All Editorial Issue" (I have plenty to say), I will outline some concerns I have about the sorry state of personal computers and the personal computer press. By now, most of you have heard of, and know most of the details concerning, the new Atari 1200XL computer. And, you may have wondered what is this machine and where does it fit in? Well, we have a dichotomy of reactions to this new hardware marvel. On one hand, the User group press (the underground, so to speak) is buzzing with serious questions concerning this machine and the overall philosophy of Atari support. They question the need for another new machine that does not really add or improve on the existing Atari 800. The popular press, on the other hand, is buzzing too, but they are falling all over themselves raving

about the new machine's "modern look" and how well it will fit into any home's decor. Every one of the national magazines has carried a story about the new 1200XL. Some of the pieces were actually written by Atari employees, and almost every one of the stories provided no real, useful, information about the machine. They all might as well have been press releases. If you compare the information in the M.A.C.E. journal (the slickest and one of the finest User Group Newsletters) with the information in any of the national rags you will know what I am talking about. I am tired of reading no-information type reviews in the personal computer press and it is not limited to just this particular machine.

Another concern I have is with Atari's method of merchandising. By continually lowering the price of the hardware, not supporting the hardware with good, serious, software, and mass merchandising the machines at discount stores and outlets, Atari has created four types or levels of support: 1) Fly by Night; 2) K-Mart Philosophy; 3) The Computer Store; and 4) The Atari Underground. If you purchase something by mail order, you may or may not get it, and you probably will not get any help with it after the sale. The K-Mart philosophy of support is "If it's not on the shelf, we don't got it". The computer store (an endangered species since there is no way they can compete with the likes of Toys 'R Us or Crazy Eddie) is the primary source for good software, hardware, and advice. However, how many computer stores do you know that carry Atari products? Finally, the best and sometimes only source of information, help, advice and consultation is your friendly, local, neighborhood, USER GROUP. That is why we all are reading this Newsletter right now.

Before you can ask what a User Group is, you need to ask what an Atari is, and what it is used for. There are typically six major classes of use for the Atari computer. Word processing (I am currently using LJK's Letter Perfect with a Bit-3 80 column board to type this column) seems to be the number one use. Whether it is children writing book reports and essays for school, college students writing reports and term papers or Mom/Dad doing some work at home, "electronic typing" is here to stay. A close runner up is the use of Electronic Spreadsheets. One software house, Personal Software Inc., makers of the venerable Visicalc, have the distinction of producing the

AND NOW A WORD FROM THE PRESIDENT....

Bulletin from the National Weather Service.... winter storm watch... Friday, February 11th... accumulation for the Eastern Seaboard will total 18-24 inches... advisory to all members of the Jersey Atari Computer Group... even though most of you would go through worse than that to come to a meeting... the February 12th meeting is cancelled.

And so it is on February 12th as I sit in the warm comfort of my home writing this. It only took 6 hours to shovel the driveway (with the help of three boys). Reminds me of an old cartoon.... father walking along a street with his son.... snow up to the son's neck.... father says: "This snow is nothing, son. When I was a kid, the snow used to be up to my neck." In any event, we will put off the February program to a future date and continue in March as if nothing had happened.

I'm writing this using the Letter Perfect word processor and the Bit-3 eighty column board. My Atari computer now looks just like the real thing! Of course, I also had to purchase a monitor to properly see the eighty column display. Why bother, you ask? Well, I say, I intend to use my Atari to do a lot of writing and its nice to preview on the screen what will be printed on the paper in the same format. Also, try to line up columns on the screen when you have wraparound after forty columns! The Bit-3 board has a very legible character set and can be called with a USR call from BASIC or loaded from DOS. The only word processor that currently works with it is Letter Perfect. If you buy Letter Perfect, you get both the 40 and 80 column versions. Because Letter Perfect also works pretty well with several printers (including EPSON with Graftrax-plus), it is the word processor of choice for me.

I am using a BMC monitor (green/black) and find that it is very adequate. I have seen it advertised in magazines for about \$88 which makes it a real bargain among monitors. It has 15Mhz bandwidth, which is enough for the resolution needed for eighty columns. It does not have a speaker, so if you want sound you will need to connect up an amplifier and speaker using the appropriate connections of the DIN-5 connector. I don't believe that there are any color monitors that are useful for displaying eighty columns, so you will also need a color TV for those terrific Atari games (unless you only do work on you Atari (how boring!!)).

As I write this, the Bit-3 board is the only 80 column board for the Atari. That, however, is about to change. Austin Franklin Associates of Ayer, Mass. is coming out with an eighty column board about March 1st. Austin Franklin will be at our March meeting to display this product as well as their 48K memory board. Preliminary info states that it will have RGBI color and light pen options, emulate the DEC VT100, have a 256 character set, true descenders, bidirectional partial or full page smooth scrolling, underlining and more. Among questions to be answered are: what does all that mean; does it have a 40 column capability and does it work with any software, particularly word processors. Any other questions that you have should be brought to our March meeting.

Also, if you do decide to go for an eighty column system, I strongly recommend that you get the RAMROD operating system board. The ability to speed up the cursor, which is nice with a 40 column display, is darn near essential with 80 columns.

AN URGENT REQUEST: Anyone who attended our January meeting is fully aware that we are now fill up the Bell Labs auditorium. We need to consider what we do next as far as a meeting place is concerned. I am asking all of you to check out possible meeting places that you know of to see if they could meet our needs. Minimal needs should include: seating for 600-800, adequate electrical outlets, lighting and heating. Extras that would be nice are: projection TV and sound system. Please check out any possibilities as to cost and availability and bring any suggestions to the March meeting.

NEWS AND RUMORS: Atari to discontinue the 800 and 400 computers and 410 program recorder. Atari to come out with a keyboard for the 2600 game machine and the 5200 game machine. Price to come down FAST on the 1200XL.

POSTSCRIPT: Since writing this, I have spoken with Austin Franklin and gotten some more information on his new 80 column board. It comes with software to allow it to function just like an 80 column DEC VT100 terminal. It will work with most existing software without modification to the coding, i.e., 40 column Text Wizard and 40 column Letter Perfect will work in 80 columns with this board!! It uses a cartridge in the right cartridge slot, but doesn't take away any memory. It displays underlining on the screen; also inverse video and blinking cursor. With minor modification to the main computer board it can also go in slot #2, so that with a 48K memory board in slot #1 you can still have one free slot for some other goodie. He will definitely be coming to our March meeting with his new products (also possibly with one more that I can't mention at this time). How's that for intrigue!!! See you at the meeting.

Dick Kushner, JACG President

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The Tax Advantage
By Continental Software

Reviewed By Arthur Leyenberger - JACG

Yes Virginia, there is a tax program for the Atari computer and it is a good one. Of the two tax programs advertised for the Atari in the last couple of months (E-ZTAX and the Tax Advantage), the Tax Advantage (TA) is the first, and so far the only one, to materialize. So much for my plans to evaluate and compare both.

The Tax Advantage can assist you in preparing the following forms and schedules: Schedules A (Itemized Deductions), B (Interest and Dividend Income), C (Profit/Loss from a business or profession - Sole Proprietorship), D (Capital Gains and Losses), E (Supplemental Income Schedule from rents, royalties, etc.) G (Income Averaging), and SE (Self employment Social Security computation). Forms 1040 and 4562 (Depreciation and Amortization) are also available. In addition to preparing these forms, TA will allow up to three Schedule C's for three different businesses and up to three properties on Schedule E for rent and royalty income. If you have a printer, TA can print the forms as well as the itemizations that may make up any particular line item. Many printers are compatible and if yours is not, you can supply the ASCII codes needed and TA will do the rest. For those of you without a printer, TA is still very useful. Instead of printing the forms, you would have to copy the information off of the screen.

There are several useful and clever aspects to the Tax Advantage. Being able to itemize (up to 30 items) just about any line item is very useful especially in two-income families. Another useful feature is that if you press "T" at any time during your session, TA will instantly show you 1) the currently computed adjusted gross income, 2) the tax liability based upon that adjusted amount, and 3) your tax bracket. This feature operates regardless of the completeness of your current 1040 form. Checking these numbers as you proceed through your session should reveal an ever decreasing tax liability as you enter deductions and credits. Still another valuable feature is the ability to temporarily enter numbers on any line to instantly determine the tax consequences.

The Tax Advantage is written in BASIC A+ (OSS). There is no need to own A+ since it comes with the package and is automatically invoked. The overall speed of the program is not especially fast or slow, it is acceptable. I only have one disk drive, which required me to perform a lot of disk swapping between the TA disk and my data disk. A two drive system would save considerable time and frustration. More than one tax return can be completed with TA. The only requirement is that each return must use a separate disk. The Tax Advantage requires 48K of RAM and at least one disk drive. An 85 page user manual housed in an attractive blue binder, the program disk (2 sides are used) and a warranty card which, when mailed with \$10.00, will give you free updates to the program for one year. Close reading of the manual suggests that these updates concern this program based upon the 1982 tax laws. However, another super bonus item is that once you've spent the \$50.00 or so for this ye

tax program (don't forget - it's tax deductible), you will be allowed to purchase next years program at half price. *What a deal!*

Let me remind you that this program will not automatically prepare your tax return, nor will it find all of those great deductions. It is a powerful tool for you to use in preparing your income tax return and a convenience. How many times have you made a simple arithmetic error on your return and not found out about it until the IRS sent you a little computer printout? How many times have you just finished spending hours preparing your return with schedules and sub-schedules, only to realize that you forgot to include a certain deduction or an additional source of income? These are the kinds of problems that the Tax Advantage eliminates. Using TA will not necessarily save you time. It won't save you money per se, either. It does not obviate the need for good record keeping throughout the year and a systematic approach to this dreaded annual chore. What it *will* do for you is give you the flexibility to look at alternatives in preparing your tax return and to correct an omission, should one be present.

Kudos to Continental Software for a job well done. The Tax Advantage is a winner. I look forward to seeing their Home Accountant program released for the Atari.



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GROUP PURCHASE POLICY OF JACG

The Executive Committee of JACG has established the following as our policy regarding group purchases: There will be occasions when it is determined that group purchases of software and/or hardware is in the best interest of the membership. This shall not be done on such a regular basis as to compete with local computer stores. Whenever possible and feasible, we shall notify the local computer stores in advance of ordering that we will be making such a purchase and offer them the opportunity to match the price. We shall also notify all our advertisers that this is our policy. Any member may suggest any item that they feel ought to be purchased through the use of group purchasing power.

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Reviewed by Curt Springstead JACG

I like this magazine very much. Why? Well let's look through the latest issue and I'll show you.

Though this magazine states in the masthead that it is for beginners it is really aimed at teen and pre-teen beginners. The first thing to strike you about the magazine is the size of the print. Nice and large for the younger set, but don't let this fool you the content is not baby material.

The editorial addresses the question, Can anyone program? The conclusion is that everyone will have to program to one degree or another.

The first article gives a thumbnail review of the VIC-20 and points out the user friendly features of the machine. This kind of review is the most helpful type for the novice computer buyer since it does not get bogged down with bits and bytes.

Here's a word search puzzle using computer terms and BASIC commands. This would be excellent material for the classroom and the publisher recognizes this by offering special subscription rates for schools.

The first regular feature is the Lesson Corner, which this month discusses the graphics techniques of the TRS-80. The subject is presented by having the reader create a target game similar to the one developed in the December PILOT column. In the two issues I have read so far I have not seen any ATARI material but then the depth and subjects of the tutorials have not been such that they couldn't easily be translated to the ATARI.

One of the nicest features of the magazine is the relationship it has with it's readers. A regular feature is the CompuKid of the Month, which spotlights a reader. Now these kids are not the budding computer geniuses or entrepreneurs in other magazines just kids who like computers. This month's reader likes computers better than movies or bike riding because movies cost money and bike riding can be tiring.

Well here is a math drill program. A very nice program and useful too. The real treat is the way it is presented. Comments, a minimum of multiple statement lines and a real nice structured programming example. I believe that you learn a great deal by reading other's programs and this one will teach a lot.

Another computer related puzzle, this time a crossword and a glossary for the issue. The words defined include not only the technical words but also other "big words" that may not be readily known.

A great tutorial on the use of the editor, TRACE and LIST in the development and debugging of programs is next. This article should come with every computer sold and be read by all budding programmers.

Detective D. Bugg Presents a program with a bug in it, what else. But instead of the normal dry analysis of syntactical deviation this error is of the more common and more elusive type, the logical error. In an entertaining story we meet the programmer and the subject of the program and see the error of his ways.

Just so we don't get bored here is a real nice space adventure game. Again written for a TRS-80 but not impossible to convert and conversions make you think not just copy.

We rap up with the usual book and product reviews which continue with the simple and informative style we would expect from this magazine.

Overall this is a very good magazine paying close attention to the needs and abilities of it's readers. For you budding authors, the magazine is looking for material and given the lack of ATARI material I think your chances should be very good in getting published.

1983 MEETING SCHEDULE

All meetings are held on the second Saturday of each month in the Bell Labs Auditorium, Murray Hill, New Jersey. The meetings begin promptly at 10:00 a.m. and finish about noon. Dealer sales are permitted from 9:15 to 10:00 in the lobby, a general question and answer session occurs from 9:30 to 10:00, and a member sale/swap session takes place from 9:30 to 10:00 in the lobby (original software only).

SNOW

March 12, 1983
April 9, 1983
May 14, 1983
June 11, 1983
July 9, 1983
Aug. 13, 1983

Membership Survey

At the December meeting, a questionnaire was distributed to the members of JACG. This was to help Rich Rospond (the Program Chairman) prepare the monthly meetings. Responses from 76 members were received, which is more than sufficient for a valid survey. The results are as follows.

Your system **	800- 65	400- 11		
with	16K-9	32K - 4	48K -	
63				
with	Disk- 54	Tape- 31	Both- 22	
with	Printer- 33	Modem- 19		

Microsoft or A+- 37
Assembler or Macro- 41
Pascal- 5 Pilot- 18

Are you a computer professional- 25 (33%)

Main Interest (includes duplicates)
Programming- 60% Games- 45%
No preference- 20% Recreational- 8%
For your children- 3%

Preference for monthly meetings:
Games- 20 software- 17
Utilities- 8 Hardware- 3
Technical- 4 No preference- 15

CONCLUSIONS- Several observations can be drawn from this data. The overwhelming majority of members have an 800, 48K and a Disk drive. Tape only users are in the minority. Half of the members use a BASIC more sophisticated than Atari BASIC, and more than half have assembler. This might be due to the large percent of professionals, and Bell Labs technical people.

The main interest is in programming, followed by games, although both are close. A higher percentage of children responding might have made the games more important, although no age information was asked for on the questionnaire which could support this theory.

When asked to pick the number 1 topic for meetings, the preference was quite varied. This means that the program chairman must cover a wide range of topics, while demonstrating many new products and offerings.

I recently acquired an Epson FX-80 printer and would like to briefly describe the printer and my impressions of it. To summarize, the FX-80 is a dot-matrix printer which operates at 160 cps (characters per second), has both pin-feed and friction drives and is compatible with all software for the MX-80 F/T with Grafrax+. In addition to the increase in speed, the FX offers a selection of either a 2K print buffer or 2K of RAM for a user-generated character set (useful for creating Aunt Millie's San Serif), a dipswitch compartment accessible from the right top rear, a choice of parallel, serial or RS-232 interfaces and a plethora of electronic beeps to signal error conditions that, in my case, usually has me wondering whether I should answer my phone, take the chicken out of the oven, turn my watch off or press the snooze button on my clock radio.

There is an internal 12K ROM which yields seven (count 'em) different dot addressable, program selectable, graphic modes. The maximum resolution (in dots per line) is 640, designed to match the high-resolution monitor of Epson's QX-10 computer.

I am very pleased with this printer. It is definitely the printer of choice (in my opinion) for the serious Atari user. Not only has Epson got there act together with the hardware, they have also been studying for the final exam in the documentation department. The manual that accompanies this printer is, in a word, excellent. Information is presented clearly and concisely and examples are used where appropriate.

I do have a few negative comments about the FX-80 printer. These comments are given in the spirit of, "you ought to know this information before purchasing one". The FX-80 printer does not come with adjustable tractors. This means that all you label-making types out there will have to purchase the optional adjustable tractor feed attachment. The cost of this little goodie is rumored to be approximately \$50.00. The word "rumor" is used because this thing does not yet exist. Yes Phillip, I did attempt to make labels by using either the friction feed or one side of the pin-feed. After a couple of hours and many, many wasted labels, I realized that I too, will have to wait for the external tractor feed mechanism.

The other criticism I have concerns the manual. Although the manual is generally excellent and all of the information you will ever need is in there somewhere, the information is presented in escape sequence order. So rather than looking under "E" for expanded print or "C" for compressed print, you have to look under "W" for escape "W" and "P" for escape "P", respectively. Another problem is that in the handy dandy quick index of functions and codes, only the letters are given, not the decimal ASCII values. For example, if you happened to be in Letter Perfect and wanted to use a very special character to, say, turn the expanded mode on, you would have to: 1) check the index to determine which escape code to use (in this case, "W"), and 2) check an ASCII table to determine the decimal value for "W". It would

3.2 ESC Control Codes

ESC SO

Name ESC SO — Enlarged mode setting

Expression CHR\$(27);CHR\$(14);

Function Same as SO.

See also SO

Example

```
10 'Enlarged Mode by ESC SO
20 LPRINT CHR$(27);CHR$(14);"Enlarged Mode";
30 LPRINT CHR$(20);" Now in Normal Mode"
```

Enlarged Mode Now in Normal Mode

ESC SI

Name ESC SI — Condensed mode setting

Expression CHR\$(27);CHR\$(15);

Function Same as SI.

See also SI

Example

```
10 'Condensed Mode by ESC SI
20 LPRINT CHR$(27);CHR$(15);"Condensed Mode";
30 LPRINT CHR$(18);" Now in Normal Mode"
```

Condensed Mode Now in Normal Mode

3-20

have been a lot simpler if the decimal ASCII codes were listed along side the character codes in the manual. In my manual, they now are, in pencil.

I will end my brief review of the Epson FX-80 printer by saying that I am very happy with it and would highly recommend it to anyone.

QUIET CLICK

By Pat Warnshuis

Reprinted from the Portland Atari
Club Newsletter, May, 1982

Last month we examined several ways to utilize the buzzer either from the keyboard (control-2) or from a program (CHR\$(253)). Personally, I find it obnoxiously raucous. Raucous, ain't it? The buzzer is actually a number of key click feedback sounds. You can generate a single key click by invoking CLICK=USR(64278). This call will always generate an error, so you must TRAP the error before and after the call. I like the nice, quiet summons of two key clicks like this:

```
100 FOR I=1 TO 800:REM Let your starting
RETURN click die down
110 NEXT I
120 FOR BUZZ=1 TO 2:TRAP 130:
CLICK=USR(64278):REM click!
130 NEXT BUZZ:TRAP 40000:REM Reset the trap to
the system & continue
```


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AT A TURTLE'S PACE with ATARI PILOT by Curt Springstead JACG

This month we will cover a few useful pokes for PILOT and show some tricks possible by playing with the color registers with text on the screen. Before we get started I would like to ask those of you using PILOT or interested in using it to contact me at the meetings or call me at 839-1702. I would like to start the PILOT user group but I only know of two of you in the club. I am also interested in ideas for things to be discussed in this column. Are you interested in educational material or BASIC to PILOT conversion aides? Just let me know what you want or you will have to read about what interests me.

You can get a large type face for your PILOT by using the following pokes:

Location	Value	Effect
1373	0	Full screen with no text window
"	16	Split Screen with text window
"	32	Full screen but do not clear
1374	0	Regular 40 by 24 display
"	1	20 character by 24 line display
"	2	10 character by 12 line display

Remember that to POKE a value to a location the format is:

C:0B(address)= value

for example C:0B1373=16

The next trick is the manipulation of the color registers to get special effects. The chart below shows how the registers are used by the normal text and graphics modes. You will find however that the text in the large type modes described above will be in different colors depending on the character being printed. The capitals vary from the lower case which vary from numbers and special characters and the inverse key changes all of these around. Experiment with the characters in the sample program below to see what I mean.

Location	Color	Register	Effect
708	0		Graphics Pen RED
709	1		Graphics Pen YELLOW
710	2		Text Window/ Pen BLUE
711	3		Special Text Mode Only
712	4		Background/Border and Pen ERASE

Just poke a number between 0 and 255 into these locations and you will see the color of the effected area change. The program below demonstrates the use of these registers to get a special effect. This marquee idea could be used to create a "reward" for correct work or act as an attraction device.

Set the screen to have no text window and large letters.

10 C:0B1373=0
20 C:0B1374=2

The only way to get output to the screen in the new mode is to WRITE the information to it. The "S." indicates the device to be written to. The WRITE command can be used for any device attached to your ATARI.

30 WRITE:S.

Put some different colors in the color registers. This must be done inside the WRITES because the first write sets the color registers to their normal values before starting and would write over our values if done earlier.

40 C:0B708=50
50 C:0B709=54
60 C:0B710=58

Write the display desired to the screen. The pattern is a capital A followed by an Inverse capital

A and then a lower case a. This pattern is repeated for the entire border. I was unable to get graphics characters to display perhaps someone who has done this in BASIC can let me in on the secret.

70 WRITE:S. AAAAAAAAAAAAAA
80 WRITE:S. a A
90 WRITE:S. A MARQUEE A
100 WRITE:S. A a
110 WRITE:S. a DE PILOT A
120 WRITE:S. A A
130 WRITE:S. A a
140 WRITE:S. aAAAAAAAAAAAAA
150 *LOOP

Get the current values for the color registers and move them over one location.

160 C:0A=0B708
170 C:0B=0B709
180 C:0C=0B710
190 C:0B709=0A
200 C:0B710=0B
210 C:0B708=0C

Rest here a bit so the effect can be seen. Adjust this value to slow or speed up the effect.

220 PA:07

Go back and do it again.

230 J:*LOOP

The technique shown here could be used to create animation via a redefined character set and setting the appropriate character to background color and display color to cause it to blink.

THE WORD AS GIVEN BY MOTHER ATARI

The graphics "turtle" is the cursor and as such cannot be changed in size or shape. The elimination of the text window in the graphics mode is not possible. A machine language routine exists but it only works sometimes. LOGO will probably be available from ATARI no earlier than late this year. I am aware of some people who are involved in the project and know that the specifications have been set so that all that's left is the coding.

That's all for this month, please talk to me about your desires for this column and the user group.

Writing for the JACG Newsletter

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The JACG Newsletter seeks hardware and software reviews, tutorial articles, programs and any other information of interest to Atari computer users. Material should be sent to the Editor (see back page of this Newsletter for address) and conform to one of the following formats:

1) LJK Letter Perfect files on disk, 2) Text Wizard files on disk, 3) 4-3/4 inch column, single-spaced, dark black ink, right justified, no printing on perforation and pica font (10 cpi) hard copy, 4) Microtext files on disk, 5) BASIC REM statements on disk, and 6) BASIC REM statements on tape. Anything else will not be accepted, especially hand written or non-justified type written. Figures should be in black ink and camera ready.

The above format options are numbered from 1 through 6. The lower the number of the option you choose in submitting items for the JACG Newsletter, the better the Editor will like you and the sooner the item will appear in the Newsletter.

The Editor reserves the right to make changes, accept or reject submitted material.

FULLVIEW-80 from BIT3
Reviewed by Ben Eng - JACG

The FULLVIEW-80 is an 80 column character board designed by the BIT3 Computer Corporation that plugs into the last slot of an ATARI 800 computer. A green or white phosphor monitor must be used as it will not work with a television set because of the TV's low bandwidth. When it is installed with the BASIC cartridge, the computer defaults to the regular ATARI 40x20 screen format when the power is turned on. Entering A=USR(54818) will clear the screen and set it to the 80X24 format which is a computer industry standard. You can return to the 40X20 format by typing A=USR(54879) or holding down the OPTION key and depressing SYSTEM RESET. The instruction manual also provides short assembly language routines for doing this from DOS.

The retail price of the FULLVIEW-80 is \$350 which is practically the price of a home computer. Actually, this board itself is virtually a microcomputer. Upon removing the protective covers, I found 11 assorted TTL/analog ICs, a processor chip (I don't know which one as they sanded off the label), a static ram chip, two EPROMs for the character set and firmware, a SYNERTEK 6545A-1 CRT Controller chip, a crystal and assorted resistors and capacitors mounted on a 3 layer P.C. board. The board is inserted into the last memory expansion slot of the 800 computer with two flat ribbon cables that are arranged up over and out the back. One cable has a 5-pin DIN connector that connects the 800's composite luminence output to the 80 column board's video input. The other cable has a female RCA type plug that connects the board's composite video output to the monitor. I use a PANASONIC Model TR-120M1P green phosphor type. The two cables are coiled around a torroid that is left dangling outside the computers back cover to suppress RF interference. A minimum amount of RAM is not required for proper operation. The full 48K RAM capacity can be achieved by installing any of the available 32K RAM boards into the second memory expansion slot. One major hardware consideration is the increased load on the ATARI 800's inexpensive power supply. Therefore, I would suggest using memory boards that draw a minimum of current from the 5 volt supply in order to minimize the interference on the TV screen (while in the 40X24 format) and preventing possible power supply failures. I modified a 16K RAM board with a set of 4164 64K RAM chips to achieve the full memory capacity and still leave an expansion slot even with the FULLVIEW-80 board installed. Incidentally, one set of 4164 64K RAM chips consume less power than a set of the 4116 16K chips. The one hardware item that I didn't like were the ribbon cables and torroid that dangled out the back of the computer. These flat ribbon cables are very flimsy and would have probably broken off in a very short time. It is also poor engineering practice to route video signals through long unshielded wires. It wasn't long before I took my computer apart and remedied this situation by cutting up the motherboard and rewiring the video signals through unused connector pins and shielded cables routed within the computer's chassis (since I'm an engineer, I have a lot of self-confidence in doing this, especially within the warranty period and do not recommend this operation to anyone who doesn't know how to use a soldering iron.

The FULLVIEW-80 comes with a 34 page instruction manual that is quite adequate though I wished it contained a set of schematics. The board duplicates all of the ATARI keyboard/editor commands plus an additional set of five control commands. There are some slight differences however. BIT3 wanted to make this board compatible with standard industry computer operations. The most noticeable change is the blinking underline () which serves as the cursor. The 80X24 screen scrolls upward or downward depending upon cursor movements and carriage returns. The board supports the normal ASCII character set plus 30 special control symbols. It doesn't support the ATASCII graphics symbol set however. BASIC commands such as:

POSITION X,Y

are supported with the X-coordinate range extended from 0-39 to 0-79. Advanced programming information is provided for software developers desiring to develop products compatible with this card. Instructions are even included for modifying the EPROM character chip to generate your own custom character/graphics set.

As of this writing, I have not acquired any of the word processors that are supposed to be compatible with this card (I used TEXT WIZARD in the 40X24 format for this article). I have tried the following software packages and they worked satisfactorily:

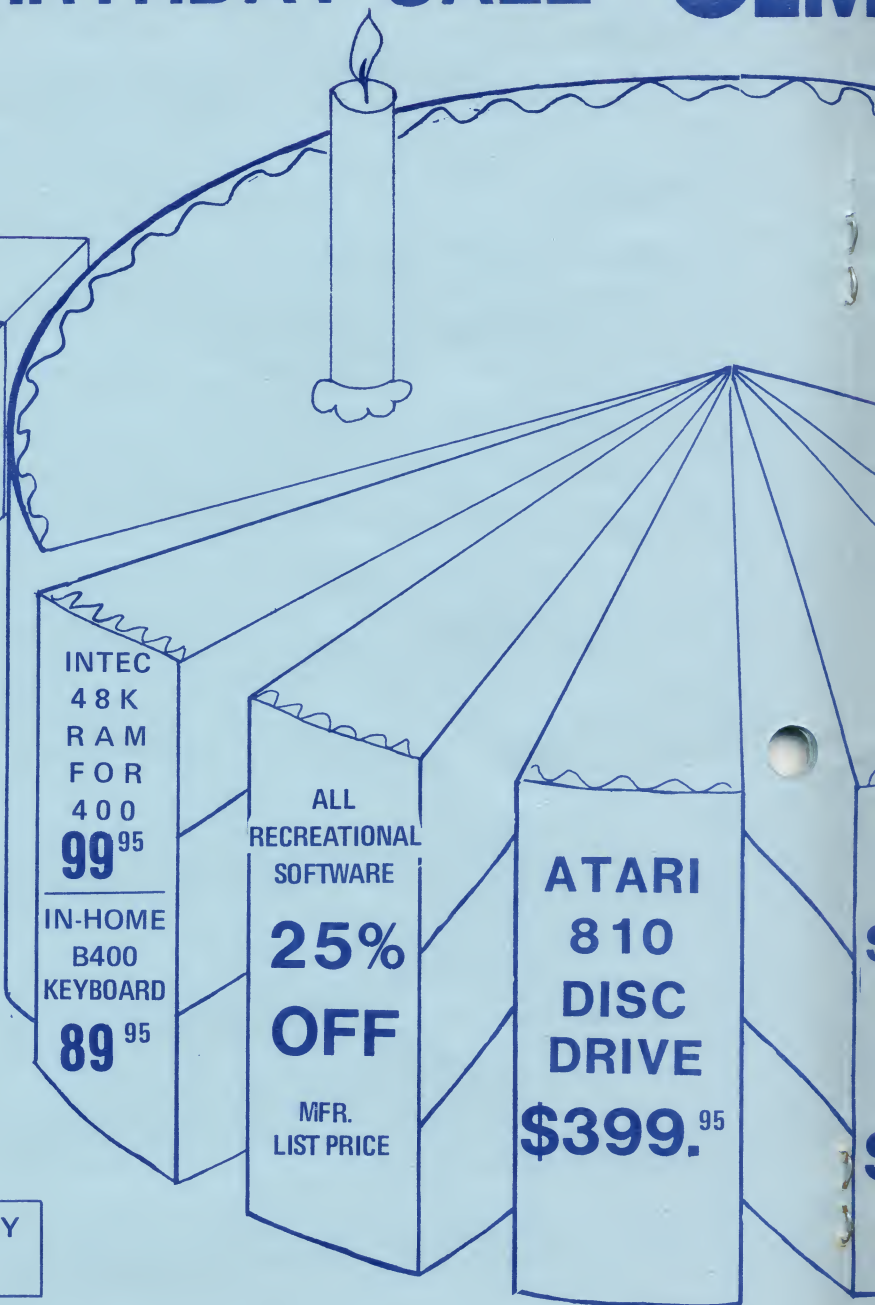
- 1) ATARI BASIC cartridge
- 2) ATARI EDITOR/ASSEMBLER cartridge
- 3) BASIC A+ and OS/A+
- 4) ATARI MICROSOFT BASIC (with some minor differences)
- 5) ATARI PASCAL
- 6) ATARI MACRO ASSEMBLER

You can create, edit, retrieve and execute programs as before but from a standard computer screen. The ATARI WORD PROCESSOR and TEXT EDITOR does not work with the FULLVIEW-80 in the 80X24 format because these packages utilize the graphics screen. The 80 column board is a character generator and can't handle bit mapped graphics. The manual claims the board will work with any of the word processors or text editor packages from LJK. In general, any program that uses bit mapped graphics or a graphics mode higher than GRAPHICS 0 will not work with the FULLVIEW-80.

Overall, I would give this product a high rating as I am quite accustomed to the 80X24 character format. The most important feature is the board's ability to switch back and forth between the 40X24 and 80X24 screen formats. I would recommend this product to anyone with a 800/monitor setup. Installing this board transforms the ATARI 800 from a HOME to a truly PERSONAL computer and not just a machine for playing video games.

Ed. Note: Good review, Ben. LJK Letter Perfect is compatible with the FULLVIEW-80 board. When the 80-column version of LP is booted, the Atari 800 is placed in 80-column mode automatically. Ben - how about a future article on modifying 16k RAM boards to become 64K boards and an article on your modification to your motherboard and rewiring to accomodate the FULLVIEW-80 board. Also, does anybody know how to use Visicalc, Text Wizard or other autoboot programs with the BIT3 80-column board?

HAPPY BIRTHDAY SALE - GEMINI

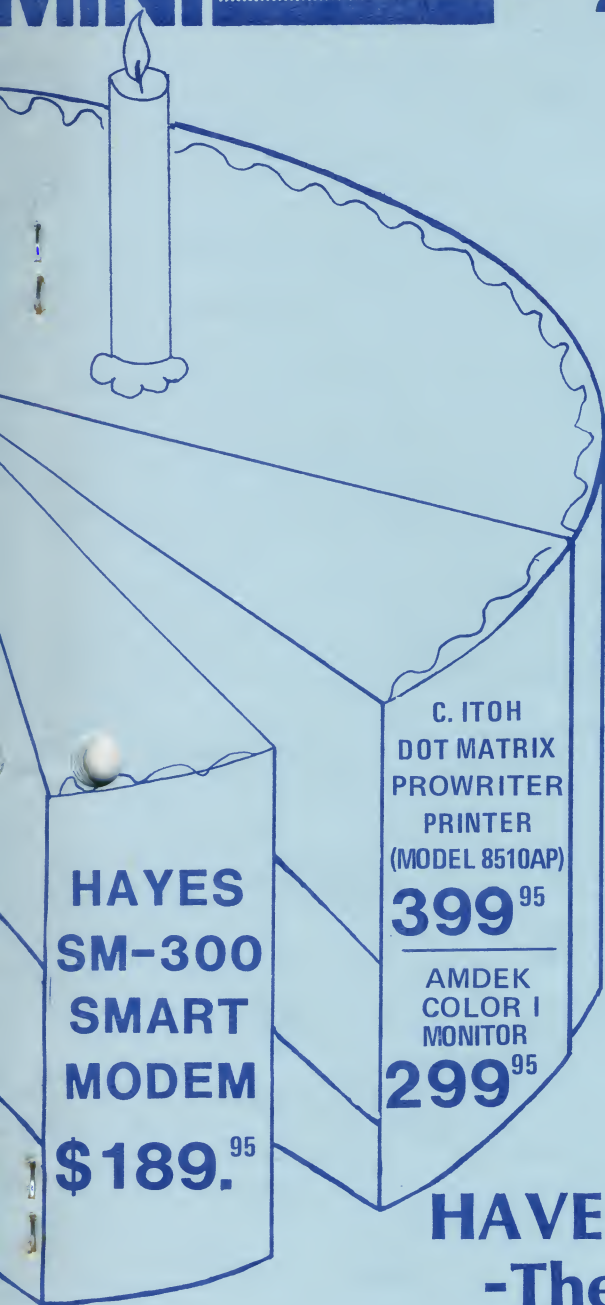


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SEE THE CAVERNS!!

By Bob Reeves-JACG

I wrote this little program for those of us who would like to survive long enough in Caverns of Mars to see what happens at some of the higher levels! I have personally had this program since I first got my disk drive, and it is still one of my favorites. I usually play at the Pilot level, and am able to survive (usually) two return trips to the surface. I tried the higher levels once or twice, and just never had enough ships left to get any practice at the "random appearing mine" level. This program will allow you to choose the number of ships you think you will need for an interesting game, and change that number at any time by running this program again. For those who have Diskscan, Diskpeek, or another such utility, just change byte 21(\$15) in sector 12(\$0C) to the number of ships you want (current value is \$05). The maximum number of ships that can be displayed is 7, so if you use more than that, you won't see them decrementing until you get to that number. I tried 255, but couldn't stay awake long enough to finish a game.

ATTENTION: This program addresses an absolute sector number and byte, and was written for the APX version of Caverns. I also checked it on the "official" Atari version and it worked. If you have some other revision, backup, etc., it may not. I do read the disk first and display the byte to be replaced (\$05) before asking you to confirm if you want to write to the disk, and if this number is 5 it is safe to continue. Otherwise, DO NOT!! After you write to disk, you can simply run this program again to read the new number of ships and confirm that the change was made.

You may have to notch the disk jacket with a punch or whatever in order to write enable the drive, and if you blow the disk, Atari will probably be a bit reluctant to give you a free replacement, so proceed at your own risk!

When I finally saw the bottom of Mars at the highest level, it was worth the hours it took to find how to change the ships. Besides, I learned just a little about assembly language in the process!

Bombs Away!!!

```
0 REM *****
1 REM ****CAVERNS MODIFICATION****
2 REM *** By Bob Reeves ***
3 REM *** JACG ***
4 REM *** Change # of Ships ***
5 REM *** In Caverns of Mars ***
6 REM *****
10 DATA 104,32,83,228,96
20 FOR I=1536 TO 1540:READ J:POKE I,J:NEXT I
30 DIM BYTE$(128):OP=82:REM 82=READ, 87=WRITE
40 GRAPHICS 0:?"Notch Caverns of Mars disk, and
place in drive. Hit START when ready."
45 IF PEEK(53279)=6 THEN POKE 764,255:POKE
53279,0:GOTO 50
46 GOTO 45
50 POKE 779,0:POKE 778,12:POKE 769,1:POKE
772,128:POKE 773,6:GOSUB 250
60 STAT=PEEK(771):IF STAT=1 THEN 80
70 ? "ERROR #";STAT;" ON GET":GOTO 50
80 FOR I=0 TO
127:BYTE$(I+1,I+1)=CHR$(PEEK(1664+I)):NEXT I:GRAPHICS
0:?"Present # ships = ";:ASC(BYTE$(22,22))
90 ? :?"WARNING: If this number is not '5',
your disk format is different than theAPX version.
Hit the ";
100 ? "BREAK key and do not continue (unless of
course you have already changed it)."
110 ? :?"PRESS START TO CONTINUE"
120 IF PEEK(53279)=6 THEN POKE 764,255:POKE
53279,0:GOTO 140
130 GOTO 120
```

```
140 OP=87
150 TRAP 155:GRAPHICS 0:?"ENTER # SHIPS
REQUIRED (1 for Expert, 255(max) for Klutz";:INPUT
N:GOTO 160
155 TRAP 40000:?"A number between 1 and 255
please.":FOR X=1 TO 500:NEXT X:GOTO 150
160 IF N<1 OR N>255 THEN 155
165 BYTE$(22,22)=CHR$(N)
170 FOR I=0 TO LEN(BYTE$)-1:POKE
1664+I,ASC(BYTE$(I+1,I+1)):SOUND 0,I,8,10:NEXT I
175 SOUND 0,0,0,0
180 ? :?"New # ships = ";STR$(N)
190 ? :?"PRESS START TO WRITE TO DISK"
200 IF PEEK(53279)=6 THEN POKE 764,255:POKE
53279,0:GOTO 220
210 GOTO 200
220 GOSUB 250
230 STAT=PEEK(771):IF STAT=1 THEN ? :?"SUCCESS!!!
":END
240 ? :?"ERROR #";STAT;" ON WRITE - IS DISK
LOCKED?":?"CHECK NOTCH AND RUN AGAIN.":GOTO 260
250 POKE 770,OP:X=USR(1536):RETURN
260 END
```

Time of Day Clock
By Alan B. Hartmann - JACG

These routines will enable a user to have the system keep track of the time of day. There are two routines: one to set the time of day, the other to read the time of day. The Atari operating system will keep the time fairly accurately, whether there is a program running or not (for a more detailed explanation of why it's not perfectly accurate, and why it really depends on exactly what's going on, see the article in the October/November issue of Antic--'On having a Good Time'). For most instances where you'd simply like to know what time it is, however, these routines should be more than adequate.

The 'SET' routine as listed below, requires entry of hours, minutes, and seconds. Depending on your specific needs, you could modify this routine to always set seconds to zero, for example. You may also want to combine multiple statements per line (single line statements make for easier newsletter reading, I've found!). Once set, the operating system will take care of updating locations 18, 19, and 20 by treating them as a 24-bit counter, and adding one to it on every vertical blank interrupt (which occurs approximately--but not exactly--every 1/60th of a second).

The 'clock read' routine as it appears below simply displays the time in the upper left corner of the 'GRAPHICS 0' screen, but you can obviously change this code to suit your specific needs. The tests at line 32020 are necessary because it is possible that the operating system could have serviced a vertical blank interrupt in between the 'PEEKs', that might have caused location 19 or 18 to increment. For example, let's say that location 20 contains the value 255, and just after BASIC peeks into location 20, (and after it has stored that value in variable 'L20') a vertical blank interrupt occurs. The operating system will reset location 20 to zero, and add one to location 19 BEFORE Basic regains control of the processor. If line 32020 is removed, there is a chance (albeit small) that two successive calls to this subroutine could return times four seconds apart (actually 256/60 seconds). The same scenario could develop with location 19 starting at 255--causing location 18 to

Continued from Page 12

increment--with the result that two successive calls could be 18 MINUTES(!) apart.

For some applications, relying on only one of these locations is all that is needed. For example, if you wish to time a game to approximate seconds, simply POKE 19,0 at the beginning of the game, and at any point thereafter, PEEK(19)*4 will be the approximate number of seconds elapsed since you did the POKE. (Note that this will give you elapsed time with a resolution of four seconds--finer resolution requires the use of location 20.)

```

1000 REM *****
1010 REM Demonstration of subroutine use
1020 REM *****
1030 PRINT "}"
1040 PRINT "Enter hours, minutes, and"
1050 PRINT "seconds, separated by commas"
1060 GOSUB 32100
1070 PRINT "I'm going to pause for a couple"
1080 PRINT "of seconds, then I'll clear"
1090 PRINT "the screen and display the time."
1100 FOR I=1 TO 900:NEXT I
1110 PRINT "}"
1120 GOSUB 32000
1130 PRINT "Now just to prove that no user"
1140 PRINT "program need be running to "
1150 PRINT "keep the clock updated, I'm"
1160 PRINT "going to 'END' now, but when"
1170 PRINT "I do, type:"
1180 PRINT
1190 PRINT "GOSUB 32000"
1200 END
32000 REM *****
32005 REM Time of Day Read Routine
32010 REM *****
32015 L20=PEEK(20):L19=PEEK(19):L18=PEEK(18)
32020 IF L19<>PEEK(19) OR L18<>PEEK(18) THEN
32015
32025 SECONDS=INT((L20+256*(L19+256*L18))/60)
32035 HOURS=INT(SECONDS/3600)
32040 SECONDS=SECONDS-3600*HOURS
32045 MINUTES=INT(SECONDS/60)
32050 SECONDS=SECONDS-MINUTES*60
32055 POSITION 3,3
32060 PRINT HOURS;" ":"MINUTES;" ":"SECONDS;" "
32065 RETURN
32100 REM *****
32105 REM Time of day SET routine
32110 REM *****
32120 INPUT H,M,S
32130 SECONDS=(S+M*60+H*3600)*60
32150 L18=INT(SECONDS/65536)
32160 SECONDS=SECONDS-L18*65536

```

A DELIGHTFUL MENU
by Bob Nadler - JAGC
=====

A clever fellow named John P. Humble wrote a little program (published as "DOS Kapital" in the Dec. '82 issue of CREATIVE COMPUTING) that neatly solved a long-standing problem of mine. I keep scratch disks on which are recorded all sorts of peculiar things -- tiny programs or pieces of programs -- and lots of them. I often have to load the DOS and use option A to find if the bit I want is on the disk I think it's on. When I'm in a hurry, loading the DOS seems to take forever.

Mr. Humble's little gem does everything DOS option A does, and it loads in nothing flat. I liked his program as it was published, but I decided that I'd also like to be able to have a printed record of my disk's contents. So I tinkered a bit with Mr. Humble's work to make the

program produce hard copy. Then I got annoyed at the screen and printer formatting, so I fiddled some more.

I've reproduced John's program (with his permission of course) below, as originally published.

```

10 GRAPHICS 0:OPEN #2,4,0,"K"
20 DIM FILENAME$(23*17),FILE$(17),F$(20)
30 OPEN #1,6,0,"D:*.*)"
40 TRAP 900
45 FOR X=1 TO 64
50 INPUT #1, FILE$
55 IF FILE$(5,16)="FREE SECTORS" THEN 70
60 PRINT CHR$(64+X);" " ;FILE$:FILENAME$((X-1)*
16+1,(X-1)*16+16)=FILE$
65 NEXT X
70 PRINT: PRINT "TYPE LETTER"
75 GET #2,A:A=A-64
77 FILE$=FILENAME$((A-1)*16+3,(A-1)*16+13)
80 F$="D:"
81 FOR X=1 TO 8
82 IF FILE$(X,X)=" " THEN 85
83 F$=(LEN(F$)+1)=FILE$(X,X)
84 NEXT X
85 F$(LEN(F$)+1)="."
90 F$(LEN(F$)+1)=FILE$(9,11)
100 RUN F$
900 END

```

My changes are to lines 20, 40 (which I simply deleted) 55, 60 and 75. I also added lines 500 through 570. The changed lines and the added lines appear below.

```

20 DIM FILENAME$(50*17),FILE$(17),F$(20)
55 IF FILE$(5,16)="FREE SECTORS" THEN CLOSE #1:
GOTO 500
60 PRINT CHR$(64+X);FILE$;" " ;:FILENAME$((X-1)*
16+1,(X-1)*16+16)=FILE$
75 GET #2,A:A=A-64:CLOSE #2
500 ? :? :? :? "WANT HARD COPY? Y/N"
510 GET #2,B
515 IF B<>89 THEN 70
520 IF B=89 THEN OPEN #1,6,0,"D:*.*)" :FOR X=1 TO 64
530 INPUT #1,FILE$
540 IF FILE$(5,16)="FREE SECTORS" THEN CLOSE #1:
? #7: CLOSE #7:GOTO 70
550 CLOSE #7:OPEN#7,8,0,"P:"
560 ? #7,CHR$(64+X);" " ;FILE$:FILENAME$((X-1)*
16+1,(X-1)*16+16)=FILE$
570 NEXT X

```

Try it Mr. Humble's way first. If you like the results make the changes I did, and I suspect you'll like this fine little program even more; perhaps enough to make you want to add it to all of your scratch disks.

LATE FLASH

Just received a new game and it is fantastic! It is called Planet Missionary by Magical Software. There will be a full review in the next issue.

HOME COMPUTER FURNITURE:
Do-it-yourself
By Graham Van Slyke - JACG

Need a way to get it all together?...your computer hardware that is. Here are plans for a custom cabinet I designed and built. My own is a scaled down version due to space limitations. The dimensions included here have been optimized for general use and can, of course, be changed to fit individual needs. Three significant dimensions are: 27" above the floor for the keyboard (most comfortable, considering space requirements for average seating), 10" opening for the console (ample view of keyboard and access to console hatch, also enough clearance to stack 2 single Atari disk drives, 12-1/4" opening for books (allows room enough at top of a loose-leaf binder to be pulled from shelf by hooking top of binder with finger(s)).

BASIC CONSTRUCTION: The primary material is 3/4" plywood. In retrospect, I would recommend using plywood with both sides finished (I wasted a lot of time filling knotholes). All shelves are seated in 3/4" (X 1/4" deep) channels routed in the sides and secured with 2" flat-head wood screws. You will note that the T-V shelf is 1/2" short of reaching the outside face of the sides. I chose to use 3/4" X 3/4" pine as a trim on the front and exposed ends of this shelf. This makes a nicer finished edge since plywood edges splinter so badly. The same trim was applied to the pull-out writing shelf. If you choose to laminate, disregard the trim, but do compensate for the 1/2" shortage on the T-V shelf.

The pull-out writing shelf was mounted in place using 22" drawer slides

I found it convenient to pre-finish all the individual pieces prior to assembly.

ACCESSORIES: A six-outlet power strip was mounted on the left side just below the pull-out shelf. This provides a central shut-off point for all your units. A switchable night light plugged into a surface mounted outlet affixed to the underside of the T-V shelf provides adequate light for the keyboard (note that this light does not directly reach the T-V screen). Another switchable light was mounted above the printer.

MISCELLANEOUS: In order to "can the worms" - consolidate the wiring, a length of 4" plastic drain pipe was suspended beneath the console shelf and "stuffed" with slack wire and transformers. (This prevents blackouts from occurring because of a pulled plug during intense foot twitching or toe squiggling episodes while engaging hostile space aliens or debugging your latest program).

If you do have a printer, a 12" deep wire storage rack positioned 2" from the rear of the console shelf at a height of 4-7/8" makes a handy paper shelf. Use the right end for the feed pile and the remainder for extra or other kinds of paper. Also, make the indicated cut-outs for throughput of paper into the printer and out to the rear and downward, out of the way.

In order to take advantage of the underneath space, a stand-alone drawer and/or shelf unit

can be constructed and placed adjacent to right side. Some key dimensions are: limit the unit height to 23" in order to maintain clearance for the pull-out shelf, a depth of 18" will not interfere with the suspended slack-wire tube, interior drawer dimensions to hold disks 6"W X 5-1/2"H. If you take the project this far, custom design and build this unit after the main cabinet has been completed.

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Legislation Introduced To Protect
Computer Software
From Computer Design, Sept. 1982

The House Subcommittee on Courts, Civil Liberties, and the Administration of Justice is considering new legislation for software protection. Introduced by Committee Chairman Congressman Robert W. Kastenmeier, (D) Wisconsin, the legislation --if passed-- will amend the Federal Copyright Law by incorporating the World Intellectual Property Organization (WIPO) definition of "computer software" into U.S. copyright laws. It will also emphasize that reliance on copyright protection in no way precludes any state trade secret protection, and that the use of a copyright mark on unpublished software does not constitute "publication" of the material. In addition, it will establish a procedure for the secure deposit of computer software within the Copyright Office. Although the law is not expected to stop the proliferation of software piracy, its supporters believe it will ease proof of that type of theft and provide an opportunity for software developers of all types to obtain payment from those who steal their work. The bill is supported by the Association of Data Processing Service Organizations' Software Protection committee and unanimously endorsed by that organization's board of directors.

Protector II
Synapse Software
Requires 32k disk/cassette, 16k cartridge

Reviewed by Bill Comella and Wayne Hoy - JACG

Those who bought Protector I from Synapse and loved it are in for a real treat. A new version of Protector is out, Protector II. Do not be turned away from this game thinking it is Protector with a few cosmetic improvements. It is an entirely new creation that is a vast improvement over the first version. Don't be alarmed, fans of Protector I! All your old buddies have returned in Protector II, and they have been joined by some new friends (fiends?). The idea and story of the game remains the same. The Slimehordes from the Planet Frauxillus have invaded your planet, and their mother ship is now taking over your city and killing the inhabitants by dropping them into a raging volcano, Dragonmaw. Your job as Protector is to remove the people from their besieged city to the temporary safety of the City of New Hope before the mother ship can carry the people off to the volcano. But it's not that easy, as rocket launchers on the ground shoot at you every step of the way, Xytomic Pulse Trackers come at you from all sides, and little creatures called Chompers who seem to be all mouth jump up from the ground to eat your ship. And your passengers will not be safe for long in the City of New Hope, as Dragonmaw soon erupts starting a lava flow that will destroy the city and its inhabitants. Before this can happen you must carry all the survivors to their final destination, the safety of the Verdann Fortress. The Fortress lies beyond the Laser Fields of the Strakk where stationary and mobile laser installations fire at you all the way, and meteoroids drop from the sky.

The description above may sound familiar to some of you, but there are many improvements and additions over the first version of this game. First, if you read the paragraph above carefully, you'll notice that the pulse trackers are now being assisted in their mission to get you by Chompers, little mouths that drop from the sky and then hop along the ground trying to get your ship. The pulse trackers are also far more numerous than in the old version (as in a couple dozen more attacking at once than in the old version). The Strakk Lasers have been upgraded with the addition of a mobile laser that drives along the ground seeking to destroy your fighter. The volcano shoots explosions far into the air, and the lava flow appears to bubble and sizzle. The little people also wave to you now (don't get too excited, they don't look nearly as good as the ones in Choplifter). One of my favorite improvements is that you can now fly through buildings and people without getting killed. The ship drops people by touching them to the ground rather than by pressing the fire button, so you can now engage in violent laser fights without losing your passenger. Alas, the mother ship is still indestructible, although it can be stopped briefly by a hit from your laser. The color scheme of the scenery also looks better. Perhaps the best improvement over the old version is the way the difficulty of the levels is worked out. On the old version, higher levels of the game were nothing more than the lower levels with a few strategic delays removed so that the speed of the action was increased. Unfortunately, this speeding up became ridiculous at the highest level, and it

was literally impossible to play simply because of the speed of the enemy. On Protector II the levels are made harder by the addition of more pulse trackers and chompers. Naturally, they move faster and the ground defenses shoot faster, but at least now the speed of the enemy is not impossibly fast. The sounds are also more vivid and varied than in the old version.

The worst thing about the first Protector was it became boring. The simple lack of action but no lack of speed on the enemy's part made it no fun to play after awhile. You won't have this problem with Protector II. There are enough aliens on the screen now to make it just hard enough on level six so that the expert will be challenged, but still be able to win. A final note: the player now gets a bonus ship every 10000 points.

Protector II should be as much a part of your game library as Star Raiders. We have a lot of games for our computers, but this one is the one to boot. We would get it even if we already had Protector I (which we do!). Rating on a scale of one to ten: 10+!

+++++
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SEA DRAGON
By ADVENTURE INTERNATIONAL
Requires 1 or 2 joysticks
Reviewed T. V. Murphy - JACG

Sea Dragon is an interesting submarine game with nice colors and sounds. Although the graphics aren't the best I've seen, the game is enough to have you playing for hours at a time.

The object of the game is to get as far as possible with your five submarines without getting destroyed by the many mines, which at random times rise toward the surface. If one of these mines hits you, that ship is destroyed. Your ship may also be destroyed if you touch the sea bottom or tunnel sides. At advanced levels your submarine can be destroyed by pulsating laser beams and depth charges dropped by enemy surface ships.

Sea dragon seems to me to have an everlasting string of levels. Just when you think you finished the "hard part", there's a next level.

I find this to be a challenging game that requires good coordination to get to advanced levels.

GO FORTH, SUPERMAN

by Donald Forbes - JACG

I was Superman on Jan. 15, 1983 at 5 o'clock. My FORTH program worked, and for the first time in 25 years I was master of the computer, and not the slave. I typed a letter F at the console and on the green screen a large F created from 13 asterisks appeared as if by magic.

FORTH is first of all a religion (once you master it, you never go back to your old ways). Second, it is an operating system. Your session, to my great surprise, is a three-way conversation between the screen, RAM memory (as much as 48K) and 90K of "virtual" memory on your disk. Thirdly, it is a language that is ideal for structured programming (like piling one BASIC call upon another). Life will never be the same.

I have the Valforth packages. I did the following to get them to work: 1. Formatted a blank disk. 2. Read in the Valforth 1.1 disk. 3. Swapped in the Valforth Utilities. 4. Typed 64 LOAD to load the Valforth Video editor into the dictionary. 5. Swapped back to the Valforth 1.1 disk. 6. Typed 38 LOAD to load the print utilities, then the debug, graphic and sound utilities. 7. Inserted the blank disk and typed SAVE (and Y for yes) to create a new working disk. 8. Booted the working disk. 9. Typed 0 180 INDEX, and the headings on all the screens started to pass in review. By the time I got to screen 40 I saw nothing but ATARI hearts, and then I knew that someone up there cared. 10. Typed 40 V (V for view) and I got a blank edit screen filled with hearts. 11. I remembered a command 40 CLEAR which replaced the hearts with blanks. 12. The editor worked beautifully. I typed in Brodie's program to create an F. <Control> <S> saved the screen. Typing FLUSH brought the disk to life and stored screen 40. 13. Typed 40 LOAD which loaded the screen into the dictionary. 14. Typed F at the console which brought the 13-asterisk F to the screen. The weeks of confusion and trial and error were crowned with success at last.

Ridiculous? What I failed to realize was that a FORTH session is a conversation with the disk (hence no write-protect tab on notch), that you have 180 screens on the disk to work with, that about a third of them contain your program object code (pre-compiled assembler language and FORTH words) and that the rest of the disk is yours to create new programs. Typing 40 V calls screen 40 from the disk into the editor, FLUSH saves the modified screen back to disk, and 40 LOAD converts the source code into executable object code. Simple? Sure! Once you know the answer. Can you draw a Roman clock face from memory? How many ones on a dollar bill--did you count the unum in e pluribus unum?

If ATARI is your biggest hardware bargain, then FORTH is certainly your greatest software bargain. And it is transportable, if you ever go to a 16 or 32 bit chip. You have several choices of FORTH (see ANALOG issue number 9). All you need to get started (a

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must) is Leo Brodie's amusing and informative tutorial "Starting FORTH" for \$16 (Prentice-Hall, 1981) and a copy of the JACG Fig-FORTH disk.

We have the nucleus for a FORTH interest group with Jim Stanard, our December speaker, and Secretary Ed Picciuti. I will have a sign-up sheet at the February meeting and, since I have most of the Valforth packages, will gladly give a hands-on tutorial to anyone who wants to get started (377-1208).

Did you notice that TWO programs in the new APX catalog were written in FORTH? More news next month. Meanwhile, happy hacking!

JACG MEMBERSHIP

The Jersey Atari Computer Group (JACG) invites you to become a member. Dues are \$15.00 per year and entitle the member to 1) Receive the monthly newsletter and when you join, receive back issues of the newsletter as available; 2) Purchase programs from the group's extensive tape and disk librarys at special rates; 3) Join special interest groups or form new ones; 4) Benefit from the expertise and experience of other Atari computer users; 5) Participate in group purchases of software at substantially reduced prices; 6) Receive a membership card that entitles the member to discounts at local computer stores; 7) Attend monthly meetings to learn about the latest hardware and software, rumors, and techniques for getting the most out of your Atari computer; 8) Submit articles and programs to the newsletter and give demos and presentations at the monthly meetings; 9) Participate in sale/swap activities with other members; and 10) Have a lot of fun.

If all of this sounds good then send a check or money order, payable to JACG, to:

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Remember, receiving the JACG Newsletter is just one of the many benefits of being a member of JACG.

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RESULTS OF JACG EXECUTIVE COMMITTEE MEETING

The Executive Committee of JACG met on January 20th to discuss a number of matters of importance to the group. Here is a summary of the discussions:

1. There appears to be sufficient money in the treasury to cover the cost of the newsletter for the rest of this year (to Sept.). Advertising in the newsletter is an important cost offsetter. We will begin to use bulk rate mailing of the newsletter with the March issue.

2. Rick Olson, the Treasurer, will draw up a form to be used for reporting expenses that the group will reimburse to officers (postage, phone bills, etc.).

3. Members will be asked to help find a bigger meeting place for JACG meetings.

4. We will have signs at the March meeting to help members sit in areas marked with different "special interest group" topics in order to facilitate communication.

5. We will be more flexible in when meetings end, going until 12:30 if warranted.

6. Members will be asked if they object to selling the mailing list.

7. When we run out of past newsletters, new members will be given their choice of one volume from the library. Dues will remain \$15 for new members.

8. Art Leyenberger, the newsletter editor, has written to several magazines to call their attention to JACG.

9. A policy regarding group purchases was formulated (see a separate article in this newsletter) as a result of which we will not accept the offer to purchase Astro Chase at this time.

10. The newsletter editor will be reimbursed for the purchase of Text Wizard for use in editing the newsletter and for \$125 toward the purchase of an Epson FX-80 printer to be used in preparing the newsletter. This money will be paid at \$25 per three months as long as Art remains the editor.

11. There will be a "business" page in each newsletter with reports from the President, Secretary, Treasurer and Editor.

12. Revenue generated by the disk library will be dedicated to a fund to be used to purchase disk drives for use by the librarians.

13. We will continue to use the Tari-Board program for our bulletin board system and work with the author to provide extended functions.

TRADING POST

Trading Post is a monthly column that allows JACG members to list items for sale or swap. There is no charge for this service, and material must reach me by the 20th of the month.

For Sale: Official Atari windbreaker jackets. 1 small and 1 medium, will sell for my cost - 15.00 each. Also, ValFORTH player/missile graphics and character/sound editors from valpar. Cost \$39.95 new, will sell for only \$20.00; APX programs: Load and Go (creates autorun.sys files), BLIS (BASIC program lister), XREF (BASIC cross reference utility), INSOMNIA (sound editor), and T: (text display device) -- \$10.00 each; Iridis 2 Tutorial (cassette) - \$5.00; SCES Player Piano (cassette) - \$5.00; Swift Programming Aids - \$5.00; SCOPY 810 program - \$5.00; Electronic Games magazines - issues 1-8 : \$1.50 each or \$10.00 for all eight. Contact: Art Leyenberger, (201) 386-4254 (days).

Continued from Page 1

one most popular program for microcomputers. There are probably a dozen spreadsheet programs available, covering two dozen different machines.

A third category of software can best be described as Database Management programs. There are several for the Atari computer, and quite a few for other machines. I personally keep track of deductible business expenses, research references and my collection of science fiction books. A fourth category of computer use involves Telecommunications. Telecommuting (people working on there terminals/computers at home while hooked up to their company computer via a phone line), Networking (people communicating with each other via their computers and phone lines) and Access/retrieval services where people dial into a regional or national computer center and access everything from recipes to the latest Dow Jones Averages. The fifth category is education. This can broadly be defined as using the Atari computer to learn about many things in addition to learning about computers. This is the category that holds the most promise, yet is probably the least developed.

The last category, games, has probably been and still is the single main reason for many purchases of home computers. For every word processing or database application, there are probably hundreds of games being used. However, once the machine is home and the excitement dies down, other uses are found for the computer as described above. This is one particular area in which the Atari computer has received some bad press.

Granted, Atari (Warner Communications) is in the entertainment business and Atari launched its career on games. Their presence is still felt in the electronic game and computer game market. However, the Atari computers represent very sophisticated and advanced pieces of hardware. Although Atari seems to have dropped the ball in terms of supplying the home computer user with serious hardware and software products, aftermarket companies have rushed to fill the void. For example, a typical "Hotrod" Atari system would consist of 64k bytes of memory, an 80 column board, a green phosphor or orange monitor, an expanded and modified operating system (such as the RAMROD), a high speed dot matrix printer, a modem that allows access to the computer at work or for telecommunicating. As Atari users, we presently have the option of using no less than eight different computer languages. Atari is not actively attempting to change the "Game Machine" image that it currently has. Therefore it is up to computer user groups like ours to promote what our machines really can do, educate the user as to how to get the most out of and use their machines and fill the support void that Atari and many other computer manufacturers have created.

I could go on forever. The point is, media hype is creating a huge market for home computers. However, the industry is, as it has been since the days of the Altair, SOL and IMSAI, not mature and not capable of supporting the products that it is trying to sell. There have been great strides made in the technology and in the hardware, but the software has not changed in 8 years. It still is, in most cases, too difficult to understand and use.

After saying all of this, I feel a little better, because as you know, misery loves company.

Until the awesome April issue, Happy Programming from,

Arthur Leyenberger

=====

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JACG Meeting and Demo Schedule

MONTH	PROGRAM OR GAME
1982	
Sep	Voice Box- The Alien Group S.A.M. (Voice Synthesizer)
Oct	Choplifter, Frogger, Bandits Sneakers, Protector II, Picnic Paranoia Flipflop, Mastertype
Nov	Chopper Rescue, Salmon Run, 3R Math Tutor Stellar Shuttle, Centipede, Hellcat Ace
Dec	K-Star Patrol, Galaxian, Soccer Sea Dragon, Astro Chase
1983	*****
Jan	Demonstration by Compu-Serve Ramrod OS Board, Galahad and the Holy Grail
Feb	S N O W
March	Word Processing demonstrations Micro Mainframe Disk Drive? Light Pen Bit 3 80 column Board Austin Franklin 80 column board
April	Dow Jones data base; Atari service

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J A C G OFFICERS

President: Richard Kushner
 58 Dewey Ave.
 High Bridge, N. J. 08829
 (201) 638-8732 (home)
 (201) 582-4794 (work)

Librarian: Don Ursem (Disk)
 37 Clover Lane
 Randolph, N.J. 07869
 (201) 895-2522 (home)

Treasurer: Rick Olson
 5 Starling Drive
 Randolph, N.J. 07869
 (201) 366-6862 (home)

Vice Pres: Dennis Kushler
 45 Mountain Ave.
 Summit, N. J. 07901
 (201) 273-7588 (home)

Secretary: Ed Picciuti
 90 Mountain Ave.
 Cedar Knolls, N. J. 07927
 (201) 267-7745 (home)

Programs: Richard Rospond
 (201) 635-2936

Editor: Art Leyenberger
 40 Lawrence Rd.
 Parsippany, N. J. 07054
 (201) 887-2861 (home)

Advertising: Herb Lehner
 1375 Blair Ct.
 Bridgewater, N. J. 08807
 (201) 725-9394 (home)

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